

REMARKS

In reply to the Office Action mailed June 23, 2009 (hereinafter "Office Action"), Applicant respectfully requests reconsideration and reexamination of this application and the timely allowance of the pending claims.

I. Status and Disposition of the Claims

In the instant application, claims 1-7, 9-11, 17, and 18 are presently pending and under examination. The Office Action¹ took the following actions:

- (1) Rejected claims 1-7, 9-11, 17, and 18 under 35 U.S.C. § 112, first paragraph; and
- (2) Rejected claims 1-7, 9-11, 17, and 18 under 35 U.S.C. § 103(a) as being unpatentable over JP Pub. 2002-072135 by Kobayashi (hereafter "Kobayashi") in view of JP Pub. 08-101367 by Yuji (hereafter "Yuji").

II. Amendments to the Claims

In this response, Applicant amends claims 1, 4-7, and 9. The amendments are supported by Applicant's specification at, for example, page 12, line 23 to page 13, line 4. Thus, no new matter has been introduced by these amendments.

III. Response to Rejections

Applicant respectfully traverses the aforementioned rejections, and requests reconsideration based on the following remarks.

¹ The Office Action contains statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement or characterization in the Office Action.

A. Rejection Under 35 U.S.C. § 112, first paragraph

The Office Action, on page 4, rejected claims 1-7, 9-11, 17, and 18 under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement and asserted that "the current Application does not define/disclose what the claimed 'parallax differences' and 'whole-number multiples' are." Without conceding to the propriety of this assertion and to advance the prosecution, Applicant amends claims 1 and 9 to recite that "the parallax information [has] a number of parallaxes that is not equal to whole-number multiples of the three colors of sub pixels." Applicant's specification supports these amendments. For example, Applicant's specification states that

[a]s shown in FIG. 6, the sub pixel array has numbers (suffixes) in the horizontal and vertical directions. The numbers represent parallaxes (or viewpoints in binocular scheme) corresponding to the sub pixel array ... In the horizontal directions, first to 10th parallaxes are assigned to the sub pixels. In the vertical direction, first to fifth parallaxes are assigned to the sub pixels.

specification, page 12, line 23 to page 13, line 4 (emphases added). Moreover, as seen in Fig. 6, the number of colors of sub pixels is three (labeled R, G, and B). Therefore, in the example of Fig. 6, the number of parallaxes (ten in the horizontal direction or five in the vertical direction) is not a whole-number multiple of three, the number of colors of sub pixels. The disclosure is fully consistent with and supports the above recited portions of independent claims 1 and 9.

Applicant, therefore, contends that the amended claims are in compliance with the written description requirement and requests the rejection to be reconsidered and withdrawn.

B. Rejection Under 35 U.S.C. §103(a)

The Office Action, on page 5, rejected all pending claims under 35 U.S.C. § 103(a) as being unpatentable over Kobayashi in view of Yuji. Applicant respectfully traverses this rejection, because the Office Action has not established a *prima facie* case of obviousness. The Office Action has not properly resolved the *Graham* factual inquiries, the proper resolution of which is the requirement for establishing a framework for an objective obviousness analysis. See M.P.E.P. § 2141(II), citing to *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), as reiterated by the U.S. Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). Specifically, as shown below, the Office Action has not properly ascertained the differences between the claimed invention and the prior art, at least because it has not interpreted the prior art and considered both the invention and the prior art as a whole. See M.P.E.P. § 2141(II)(B).

Claims 1 and 9

Applicant contends that Kobayashi and Yuji, whether considered alone or in combination, do not render claims 1 or 9 unpatentable, because they do not teach or suggest each and every element of each claim. Specifically, Kobayashi and Yuji, do not teach a 3D image reproduction apparatus which, among other things, comprises:

a display including a screen on which a plurality of pixels are arranged to display synthesis parallax images in units of arrayed sub regions, wherein each of the pixels includes three sub pixels that differ in color, the sub pixels are laid out so that adjacent sub pixels differ in color, and parallax information is assigned to each of the sub pixels in units of horizontally arranged sub pixels, the parallax information having a number of parallaxes that is not equal to whole-number multiples of the three colors of sub pixels; and

an optical system arranged in front of the screen of the display, ... the optical system including a pinhole array or a microlens array in which pinholes or micro lenses are arranged corresponding to the arrayed sub regions,

as recited in amended claim 1.

In its assertion to the contrary, the Office Action cited Kobayashi's Drawing 2 and stated that

each of the display elements arranged on screen 11 corresponds to different parallax. Since the parallax of each of the display elements is determined based on the location of the observer, the number of parallax differences for each of the sub pixels are infinite based on the locations of the observer (Note that Examiner construed the parallax differences as the differences between the parallax at a location of the observer and the parallax at another location of the observer).

Office Action, page 3 (emphases added). However, Applicant respectfully notes that claims 1 and 9, as amended, recite that the number of "parallaxes," and not "parallax differences," is not equal to whole-number multiples of the three colors of sub pixels.

Neither Kobayashi nor Yuij teaches or suggests parallaxes assigned to sub pixels or that the number of parallaxes satisfies the above relationship. Further, Kobayashi and Yuij do not teach or suggest sub regions of sub pixels such that "pinholes or micro lenses are arranged corresponding to the arrayed sub regions."

Amended claim 9 recites features similar to the above features of claim 1.

Applicant therefore contends that, for at least the above reasons, claims 1 and 9 are patentable over Kobayashi and Yuij, and requests reconsideration and withdrawal of the above rejection.

Claims 2-7, 10, 11, 17, and 18

Each of claims 2-7, 10, 11, 17, and 18 depends either directly or indirectly from one of claims 1 and 9, and therefore includes the above elements which are not taught or suggested by Kobayashi and Yuji.

Moreover, amended claims 4 and 6 recite that "horizontally adjacent or vertically adjacent sub pixels correspond to different parallaxes." As noted above, Kobayashi and Yuji do not teach such a relationship between sub pixels and parallaxes.

Further, amended claims 5 and 7 recite that "the number of parallaxes is a number of different horizontal or vertical parallaxes assigned to sub pixels in a sub region." Applicant submits that Kobayashi and Yuji do not teach such a relationship between the number of parallaxes and sub pixels in a sub region.

Applicant therefore contends that, for at least the above reasons, claims 2-7, 10, 11, 17, and 18 are also patentable over Kobayashi and Yuji, and requests withdrawal of the above rejection.

III. Conclusion

In view of the foregoing, Applicant requests reconsideration of the application and withdrawal of the rejections.

If there are any remaining issues or misunderstandings, Applicant requests the Examiner telephone the undersigned representative to discuss them.

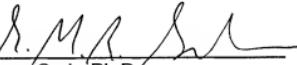
Please grant any extensions of time required to enter this response and charge
any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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